ABSTRACT

The present invention pertains to a process for production of recombinant arylsulfatase A in a cell culture system, the process comprising culturing a mammalian cell capable of producing rASA in liquid medium in a system comprising one or more bio-reactors; and concentrating, purifying and formulating the rASA by a purification process comprising one or more steps of chromatography. Other aspects of the invention provides a pharmaceutical composition comprising rASA, which is efficiently endocytosed via the mannose-6-phosphate receptor pathway *in vivo* as well as a rhASA a medicament and use of a rhASA for the manufacture of a medicament for reducing the galactosyl sulphatide levels within target cells in the peripheral nervous system and/or within the central nervous system in a subject. A final aspect of the invention provides a method of treating a subject in need thereof, said method comprising administering to said subject a pharmaceutical composition comprising a rhASA and thereby obtaining a reduction in the galactosyl sulphatide levels in target cells within said subject.